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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,509	10/19/2001	Don McCord	37802PCT-US	5393

28722 7590 10/30/2003

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EXAMINER

ASSOUAD, PATRICK J

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 10/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,509

Applicant(s)

MCCORD, DON

Examiner

Patrick J Assouad

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-84 is/are pending in the application.
- 4a) Of the above claim(s) 48-55, 80 and 81 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17-32, 56-59, 69-74 and 82-84 is/are allowed.
- 6) ☒ Claim(s) 1, 4-6, 33, 35, 38, 68 and 76 is/are rejected.
- 7) ☒ Claim(s) 2, 3, 7-16, 34, 36, 37, 39-47, 60-67 and 75-79 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Claims 48-55 and 80-81 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention (Group II), there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7

Note: claims 56-79 and 82-84 (part of Group II) are dependent claims depending on various elected claims; thus, claims 56-79 will be examined.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 33 recite the limitation "the memory" in their last lines. There is insufficient antecedent basis for this limitation in the claims.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1, 4-6, 33, 35, 38, 68, and 76 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3-5, 23-24, 26, 65, of copending Application No. 10/130,842 (Publication No. US 2003/0076125 A1). Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 4-6, 33, 35, 38, 68, and 76 of the instant application are "anticipated" by the aforementioned claims of the published application. A "double data rate (DDR) memory" is but one example of a die on a wafer.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1,4 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by **Miller** ('910 B1) filed 2/25/99 and patented 4/17/01.

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8. **Miller** discloses a high bandwidth passive integrated circuit tester probe card assembly. Fig. 1 of **Miller** is reproduced below. Fig. 1 clearly shows the claimed (dice on a) wafer and logic tester including connector, DUT, and tester logic. See the discussion of Fig. 1 beginning at the bottom of col. 3 through the line 50 of col. 2.

From the Brief Summary of the Invention of **Miller**:

In accordance with the invention, each signal path is arranged and adapted to provide a filter function that optimizes relevant characteristics of the path's frequency response and impedance characteristics by appropriately adjusting the magnitudes of its shunt capacitance and series inductance relative to one another.

And most notable from col. 10 of **Miller**, beginning at line 59, we see the section entitled "Impedance Matching":

Driver and receiver impedances R1-R4, and the various transmission line impedances Z0.sub.1 -Z0.sub.4 are typically set to similar values (e.g., 50 Ohms) to prevent signal reflections which degrade system frequency response, and the values for these components were chosen in Table II, column B in order to conform with industry practice. However in accordance with the invention, we need not necessarily do that because we can compensate for resistive or characteristic impedance mismatch by appropriately adjusting the series inductance and shunt capacitance values. For example pages 59-68 of the above-mentioned book Introduction to Radio Frequency Design illustrate how to adjust other filter component values to obtain Butterworth and Chebyshev filter frequency response behavior even when such resistive and characteristic impedances are mismatched.

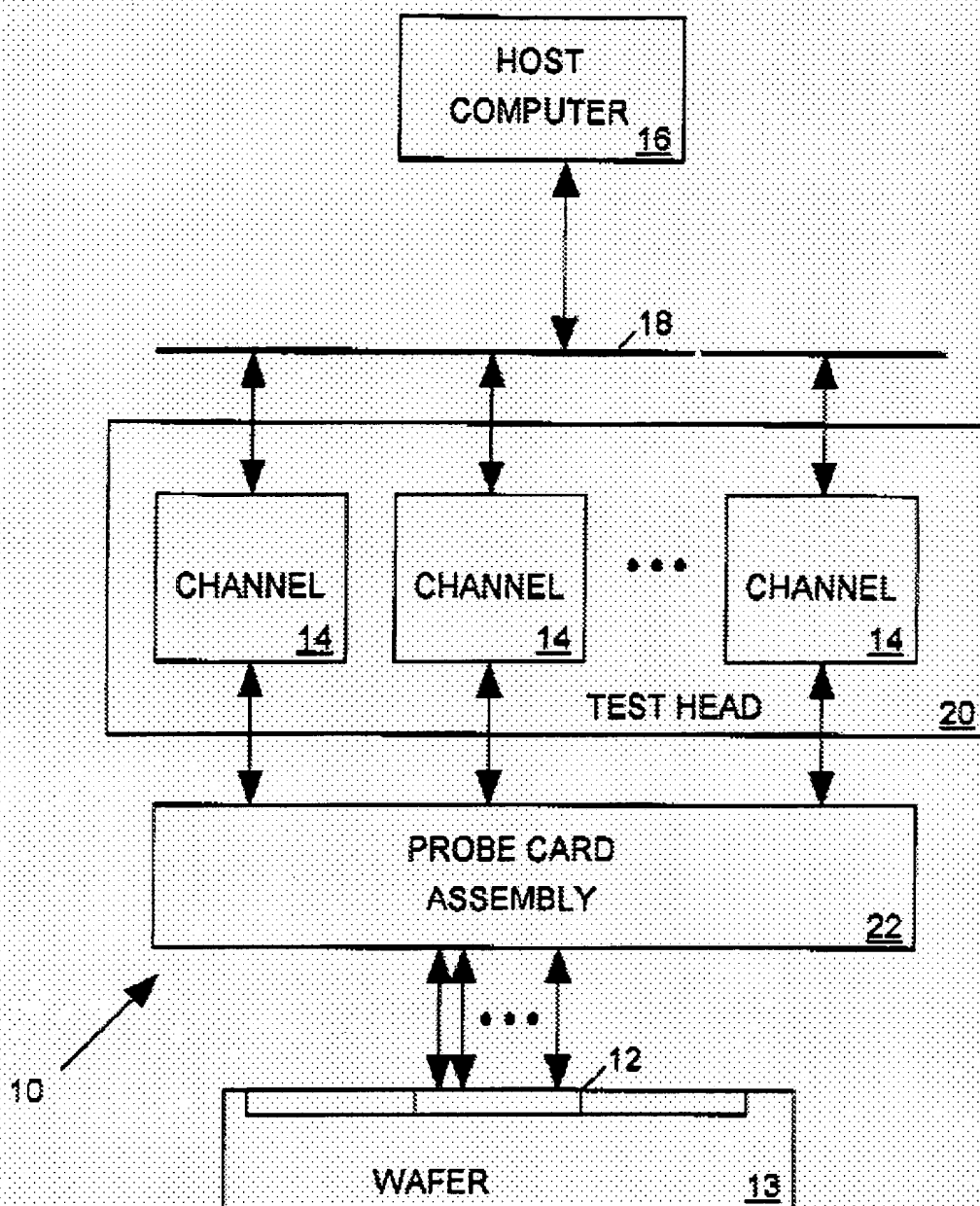


FIG. 1

And finally, claims 12-13 of **Miller** are:

12. A signal path for linking a node of an integrated circuit (IC) to a terminal of an IC tester, the signal path comprising:
a conductive pad implemented on said IC and linked to said node;
a probe for contacting said conductive Pad; and
conductive means for linking said probe to said terminal,
wherein said conductive pad, said terminal and said conductive means have impedances sized relative to one another to substantially optimize a frequency response characteristic of said signal path, and
wherein said conductive means comprises:
a printed circuit board via having a capacitance that is one of said impedances,
a trace having a characteristic impedance that is one of said impedances,
and
a spring contact having an inductance that is one of said impedances.
13. The signal path in accordance with claim 7 wherein said conductive means comprises:
a probe card including first conductors forming a first part of said signal path;
a space transformer including second conductors forming a second part of said signal path; and
an interposer including a third conductor for conveying a signal between said first and second conductors,
wherein said impedances include impedances of said first, second and third conductors.

As per dependent claim 4, the springs, see at least the bottom of col. 6, lines 66-67, of **Miller**.

Allowable Subject Matter

9. Claims 2-3, 7-32, 34, 36-37, 39-47, 56-67, 69-79, and 82-84 are allowable over the prior art of record.

10. Claims 2-3, 7-16, 34, 36-37, 39-47, 60-67, and 75-79 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in

independent form including all of the limitations of the base claim and any intervening claims.

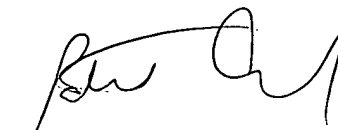
Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the attached Form 892.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J Assouad whose telephone number is 703-305-3811. The examiner can normally be reached on Tuesday-Friday, 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 703-308-1677. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Patrick J Assouad
Primary Examiner
Art Unit 2857

pja